To the same end, if during a woman's sequestration someone kills a female porcupine with young, the feti are given to the woman, who slips them within her shirt and makes them slide through down to her feet to obtain the porcupine facility of delivery. She is allowed no fresh meat during the whole month, except the flesh of porcupine.

Dried meat, fish, and marrow constitute her diet.

She cannot drink from the common cup, but has her own tableware and uses no other. She sucks water through a swan's bone, which is afterward tied around her neck. It serves, together with the parkie, to acquaint others of her condition.

A menstruating woman cannot sleep with her husband, more especially if he is young. She makes her bed apart from his, and both husband and wife sleep with their blankets over their heads that the effluvia of femininity may not pass from her to him and blast his manly abilities. After the flow is over she has to wash herself from what may remain. If, however, she should happen to be very busy, as during the salmon run, it is sufficient for her to wash her head very carefully.

The menses represent to the native mind the life-giving principle; hence, it is much used as a medicine.

The substance is at times obtained by washing in a basin of water rags soiled with it. The liquid is then used as a lotion to bathe young children or even administered to them as an internal remedy. Mothers believe that by so treating their children they preserve them from disease, although the reverse frequently happens.

I remember such a case at Mouse Point, a village on the Yukon; where a healthy child was made to drink some of this medicine and the following morning it was seized with an eruptive fever which, within twenty-four hours, had covered the whole body with red patches. Soon, however, the fever subsided and the patches turned into running sores, which did not heal for nearly a year.

In these would-be medical practices the mother always obtains the soiled rags from some other woman, never using her own, the idea appearing to be that the child has already received her entire stock of vital power; so she draws on others.

Now these people are quite faithful in their observance of these superstitions and others. Of course, individuals may disregard them at times, but they will never do so openly, and take care to persuade themselves and others as well that they are observing the customs even while acting against them. One may safely say that they tend to maintain a certain standard of morality.

When the savage is brought into contact with whites and begins to disregard these superstitions, unless something can be substituted the contact with our civilization invariably proves fatal to the race. I hope at some future time to take up other customs, especially those concerning pregnancy and childbirth.

CLINICAL NOTES AND CASE REPORTS

MULTIPLE NEUROFIBROMATOSIS*

By HARRY J. MAYER, M.D.
Los Angeles

AS contributions to the literature on von Recklinghausen's have multiplied, no longer is multiple neurofibromatosis, a fibroblastic diathesis with early optic nerve involvement, considered a rare disease. However, the case to be described is regarded as the earliest optic nerve involvement in neurofibromatosis to be recorded.

REPORT OF CASE

Mrs. Z. R., an American, aged 43, whose chief complaint, on admission to the out-patient department of Cedars of Lebanon Hospital in Los Angeles on January, 1935, was failing vision.

Past history showed treatment from 1925 to 1927 for pulmonary tuberculosis, and the surgical removal of, in 1918, the appendix; in 1926, one cystic ovary; in 1928, a small breast growth and tonsils; and in 1930, fibroid uterus and the other ovary. In May, 1931, radium was applied to a keloidal growth in the abdominal surgical scar. On August, 1931, a diagnosis of Dupuytren's contracture was considered in connection with a flexion of the right ring finger, to the flexor tendon of which adhered a firm nodule.

Important findings in the family history are: Father had a progressive loss of vision, beginning in his youth, becoming totally blind at the age of fifty-six. The paternal grandfather, who died at the age of eighty, had a growth with contraction of hand, his vision also being gradually lost.

On physical examination the patient showed a slightly generalized pigmentation of the skin. The pupil of the left eye was larger than that of the right eye, reacting more sluggishly to light. The visual acuity of the left eye was reduced to 20/200, that of the right eye to 20/50. The visual fields were found to be concentrically and markedly contracted, no fundus lesions being demonstrable. The deep reflexes were markedly exaggerated throughout. A soft subcutaneous nodule, two centimeters in diameter, was concealed at the scalp line behind the right ear; a smaller and much firmer nodule adhering to the flexor tendon of the right ring finger. Evidence of keloidal growth in abdominal surgical scar persisted.

The histopathologic diagnosis on biopsied nodule was neurofibromata.

Since 1930, laboratory findings, including blood Wassermann tests, studies on the cytology and chemistry of the blood, and three spinal fluid examinations, have been essentially negative.

Repeated roentgenologic examinations of the skull, cervical, dorsal, lumbosacral spine, thorax, shoulder, hand, gastro-intestinal and genito-urinary tracts, failed to disclose any pertinent anatomical change.

Treatment, which consisted of deep x-ray irradiation, resulted in temporary symptomatic and objective visual improvement.

COMMENT

Penfield's concept of von Recklinghausen's as a diffuse disease, with connective tissue proliferation in the nerve sheaths and the secondary formation of tumors, is illuminating.

Neoplastic connective or cicatricial tissue has the physical property of contracting upon ageing. The result in multiple neurofibromatosis is a pres-

* Read at staff meeting, Cedars of Lebanon Hospital, January 20, 1936.

sure atrophy of nerve fibers, with early loss of function.

A fibroblastic diathesis is apparent in this patient's family history, dermatologic manifestations, with confirmation in the histopathology of surgical specimens. Collectively, the findings described may be regarded in the light of a constitutional predisposition in which multiple neurofibromatosis is a disease entity.

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ANAPHYLAXIS FOLLOWING THE USE OF PITUITARY EXTRACT

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THE phenomena of protein sensitization, and of anaphylaxis resulting from a subsequent parenteral administration of the specific protein, have long been recognized. No case of anaphylactic reaction following the use of pituitary extract, so far as I am aware, has appeared in the literature. Since, therefore, I recently witnessed a severe reaction of this kind in a patient treated by hypodermic injections of United States Pharmacopeia solutions of pituitary, it seems worth while to report the experience.

REPORT OF CASE

B. K., a woman, aged 40, had had measles, chickenpox, and scarlet fever as a child. Infestation with Entameba histolytica, for a period of ten years, finally was completely cured six years ago with no demonstrable sequelae. Occasional mild attacks of influenza. Tonsillectomy in 1920. Otherwise, in good health. Physical examination revealed no pathology. Leads an active domestic life, has two children, ages four years, and five months, respectively. Both cesarean deliveries. The patient had never experienced an attack of urticaria, hay fever, asthma, or any other allergic condition. On May 18, 1936, she suffered an attack of herpes zoster, with four patches of cutaneous vesicles involving some of the endings of the lower branches of the right cervical plexus. There were no symptoms of any primary condition to account for the herpes, with the exception of fatigue as the result of a period of overactivity occasioned by the care of her two children. Encouraged by the favorable results reported in recent years in the use of pituitary extract for the treatment of herpes zoster by Sedlick in 1930,[1] Niles in 1932,[2] Somers and Pouppirt in 1935,[3] and by personal previous experience in two cases, I decided on its use in the present case. Following the method described by Somers and Pouppirt, this patient was given an initial injection of 0.2 cubic centimeter of posterior pituitary extract (U. S. P. ampoule, Squibb). There was no unfavorable reaction; this was followed in one hour with 0.5 cubic centimeter. There was a fleeting pallor and tremor following the injection, and considerable relief of pain. This dose was repeated in three hours, and during the following two days, injections of 0.5 cubic centimeter as pain reappeared; the intervals varied from two to four hours. By the end of the third day a total of 5 cubic centimeters of surgical pituitrin had been given, the pain had greatly subsided and the vesicles had begun to dry up.

On the sixth day, following the last injection of pituitary, and at about 4 p. m. the patient noted the appearance of four or five urticarial wheals about one-half centimeter in diameter, with intense itching, on the flexor surface of both forearms. By 8 p. m. similar scattered wheals appeared on all parts of the trunk and extremities. At five o'clock the following morning I was called and found the patient in shock, covered from head to foot with scattered giant urticarial wheals; the largest, on the buttocks at the site of the original injections, measured 5 to 10 centimeters in diameter. There were nausea and vomiting; pulse 140, thready; blood pressure, 80/50; temperature, 97 degrees Fahrenheit. There was slight chill; patient complained of pain in the joints, intense itching, and a feeling she was going to faint. She was immediately given a hypodermic injection of epinephrin, one cubic centimeter, to which she responded within a few minutes by relief of the nausea and vomiting; improvement in pulse, rate 100, fair volume; blood pressure, 110/70. The intense itching and burning of the urticaria were not much relieved by the epinephrin. Along with soothing lotions and starch baths, injections of epinephrin, 0.5 cubic centimeter, were given at intervals of three to four hours. Giant urticarial wheals appeared in fresh crops about every six to ten hours, preceded by nausea and vomiting, ultimately involving every square inch of the body surface, not missing the vulva, rectum, scalp, palms of hands, and soles of the feet. By the end of four days the urticaria began to abate, and within twelve more hours had entirely disappeared, leaving a slight edema of the face for an additional twenty-four hours.

COMMENT

At the time of delivery of her last baby five months previously, this patient had received repeated injections of posterior pituitary extract for the control of uterine contraction as well as gas pains. There is no doubt that these were the sensitizing doses of pituitary. Pituitary extract contains the water-soluble principles from the fresh posterior lobes of the pituitary body of cattle. Whether any precautions are taken in the preparation of this extract to exclude water-soluble proteins or their derivatives, I do not know. In any event, it seems most probable that accompanying proteins rather than the active pituitary principle are responsible for the sensitization and subsequent anaphylactic reaction described. It has been mentioned that this patient had never before experienced an allergic reaction of any kind. Furthermore, there is nothing in her recent history, habits or behavior to lead one to suspect any other substance than pituitary extract as the offending agent.

SUMMARY

A woman, age forty, otherwise in good health, was treated for herpes zoster by injections of posterior pituitary extract. Six days following the last injection of pituitary, she suffered an attack of anaphylactic shock, characterized by nausea, vomiting, fall in blood pressure, rapid, thready pulse, painful joints, and generalized giant urticaria. She was treated by injections of epinephrin and after four days of intense suffering made a complete recovery. Sensitization to pituitary (probably contaminating proteins) at time of childbirth, five months previously.

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